

**Louisiana Department of Environmental Quality (LDEQ)
Office of Environmental Services**

STATEMENT OF BASIS

**North American Fabricators, LLC
Houma, Terrebonne Parish, Louisiana
Agency Interest Number: 27507
Activity Number: PER20090002
Proposed Permit Number: 2880-00212-V0**

I. APPLICANT

Company:

North American Fabricators, LLC
208 North American Ct.
Houma, Louisiana 70363

Facility:

North American Fabricators
208 North American Ct.
Houma, Terrebonne Parish, Louisiana
Latitude 29° 34' 22", Longitude 90° 41' 59"

II. FACILITY AND CURRENT PERMIT STATUS

North American Fabricators, LLC (NAF) is submitting an application to the Louisiana Department of Environmental Quality (LDEQ) for an initial Part 70 operating air permit for an existing marine construction and repair facility in Terrebonne Parish. North American Fabricators currently operates under Permit No. Permit No. 2880-00212-02, issued October 27, 2006.

The facility submitted an application for an initial Part 70 permit. The sources include:

Permit No.	Unit or Source
2880-00212-V0	Area 001 - Outdoor Abrasive Blasting
	Area 002 - Burning and Cutting
	Area 003 - Electric Arc Welding
	Area 004 - Outdoor Painting
	Area 005 - Plasma Cutter

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III. PROPOSED PROJECT/PERMIT INFORMATION

Application

A permit application and Emission Inventory Questionnaire were submitted by North American Fabricators LLC on June 3, 2009 requesting a Part 70 operating permit. Additional information dated October 20, 2009 was also received.

Project

North American Fabricators, LLC (NAF) is engaged in building and repairing ships. The current operations include abrasive blasting of metal surfaces, burning and cutting of plate and structural steel, electric arc welding, and surface coating.

NAF projects significant growth and manufacturing activity in the near future. With this air permit modification, NAF proposes the following actions:

- Increase the blasting media throughput for Emission Source 002 (Area 001), Outdoor Abrasive Blasting.
- Increase the maximum number of torches and the plate throughput for Emission Source 003 (Area 002), Burning and Cutting Operations
- Increase the consumption of welding materials utilized in electric arc welding operations for Emission Source 004 (Area 003).
- Increase criteria and TAP emissions from Emission Source 005 (Area 004), Outdoor Painting Operations, based on historical facility data and projected facility growth. Based on the proposed increase in TAP emissions, NAF requests that the current permit emissions cap for aggregate TAPs be increased from 22.82 tpy to 79.93 tpy. NAF also requests LDEQ approval for emitting TAPs not specifically referenced in this application. Approval of this request would provide the facility with the necessary flexibility in TAP emissions so as to accommodate utilizations of varying materials to meet the needs of its clients.
- Decrease in the annual plate throughput for the plasma cutter, Emission Point 1-06 (Area 005).

Proposed Permit

Permit No. 2880-00212-V0 will be the initial Part 70 operating for North American Fabricators.

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Permitted Air Emissions

Estimated emissions in tons per year are as follows:

<u>Pollutant</u>	<u>Before</u>	<u>After</u>	<u>Change</u>
PM ₁₀	24.15	15.85	-8.30
SO ₂	<0.01	0.05	+0.05
NO _x	4.31	8.36	+4.05
CO	0.21	3.41	+3.20
VOC *	71.96	122.40	+50.44

***VOC LAC 33:III Chapter 51 Toxic Air Pollutants (TAPs):**

<u>Pollutant</u>	<u>Before</u>	<u>After</u>	<u>Change</u>
Ammonia	0.001	0.500	+0.499
Barium	-	<0.001	+0.001
Benzene	0.002	<0.001	-0.001
Carbon tetrachloride	0.005	-	-0.005
Chromium VI (and compounds)	0.005	0.008	+0.003
Cobalt Compounds	-	0.001	+0.001
Copper (and compounds)	0.256	1.566	+1.310
Cumene	<0.001	0.500	+0.499
Ethyl benzene	2.850	5.625	+2.775
Formaldehyde	0.004	0.006	+0.002
Glycol ethers	1.827	1.827	-
Manganese (and compounds)	1.451	0.307	-1.144
Methanol	0.780	1.687	+0.907
Methyl ethyl ketone	2.850	3.475	+0.625
Methyl isobutyl ketone	5.390	6.738	+1.348
Nickel (and compounds)	0.002	0.003	+0.001
Toluene	9.001	16.465	+7.464
Trichloroethylene	0.500	0.775	+0.275
Xylene (mixed isomers)	7.930	24.034	+16.104
Zinc (and compounds)	4.452	6.320	+1.868
n-Butyl alcohol	5.850	10.433	+4.583

****Total** 43.157 80.272 +37.115

****Facility wide VOCs are limited to 122.40 tpy. Use of any material containing a TAP listed in Table 51.1, 51.2, or 51.3 shall be permitted provided that its use does**

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not cause total VOC emissions attributed to ARE0004 to exceeds 121.93 tpy and total TAPs of 79.93 tpy in any 12 month consecutive month period. Emissions of any TAP not listed in ARE0004 shall be limited to the Minimum Emission Rate (MER) for that TAP listed in Table 51.1 and 51.2 of LAC 33:III.5112.

IV. REGULATORY ANALYSIS

The applicability of the appropriate regulations is straightforward and provided in the Specific Requirements section of the proposed permit. Similarly, the Monitoring, Reporting and Recordkeeping necessary to demonstrate compliance with the applicable terms, conditions and standards are also provided in the Specific Requirements section of the proposed permit.

Applicability and Exemptions of Selected Subject Items

ID No:	Requirement	Notes
Area 2 Burning and Cutting	Emission Standards for Sulfur Dioxide – Emission Limitations LAC 33:III Chapter 15	Does Not Apply – Source emits less than 5 tons per year of SO ₂ .

Prevention of Significant Deterioration/Nonattainment Review

Prevention of Significant Deterioration (PSD) does not apply to NAF. The facility was not a major source prior to this modification and none of the emission increases was significant enough to trigger a PSD review. Therefore, a PSD analysis is not required.

Streamlined Equipment Leak Monitoring Program

A streamlined equipment leak monitoring program is not in place for North American Fabricators and therefore it is not a part of Permit No. 2880-00212-V0.

Unit or Plant Site	Program Being Streamlined	Stream Applicability	Overall Most Stringent Program
North American Fabricators	N/A		

MACT Requirements

MACT is determined to be compliance with 40 CFR 63 Subpart II.

Air Quality Analysis

Dispersion Model Used: AERMOD

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Pollutant	Time Period	Calculated Maximum Ground Level Concentration	Louisiana Toxic Air Pollutant Ambient Air Quality Standard or (National Ambient Air Quality Standard {NAAQS})
PM ₁₀	Annual	28 µg/m ³	(50 µg/m ³)
	24 hr.	88 µg/m ³	(150 µg/m ³)
n-Butyl alcohol	8 Hr.	132.4 µg/m ³	(3620 µg/m ³)
Copper (and compounds)	8 Hr.	19.6 µg/m ³	(23.8 µg/m ³)
Glycol ethers	8 Hr.	23.1 µg/m ³	(571 µg/m ³)
Manganese (and compounds)	8 Hr.	4.17 µg/m ³	(4.76 µg/m ³)
Zinc (and compounds)	8 Hr.	80.1 µg/m ³	(119 µg/m ³)
Xylenes (mixed isomers)	8 Hr.	304.79 µg/m ³	(10,300 µg/m ³)

General Condition XVII Activities

The facility will comply with the applicable General Condition XVII Activities emissions as required by the operating permit rule. However, General Condition XVII Activities are not subject to testing, monitoring, reporting or recordkeeping requirements. For a list of approved General Condition XVII Activities, refer to the Section VIII – General Condition XVII Activities of the proposed permit.

Insignificant Activities

All Insignificant Activities are authorized under LAC 33:III.501.B.5. For a list of approved Insignificant Activities, refer to the Section IX – Insignificant Activities of the proposed permit.

V. PERMIT SHIELD

A permit shield per 40 CFR 60.6(f) and LAC 33:III.507I was not requested in Permit No. 2880-00212-V0.

VI. PERIODIC MONITORING

NAF will perform all of the monitoring requirements of 40 CFR 63, Subpart II for Area 004, Emission Source 005, Outdoor Painting.

VII. GLOSSARY

Carbon Monoxide (CO) – A colorless, odorless gas, which is an oxide of carbon.

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Maximum Achievable Control Technology (MACT) – The maximum degree of reduction in emissions of each air pollutant subject to LAC 33:III.Chapter 51 (including a prohibition on such emissions, where achievable) that the administrative authority, upon review of submitted MACT compliance plans and other relevant information and taking into consideration the cost of achieving such emission reduction, as well as any non-air-quality health and environmental impacts and energy requirements, determines is achievable through application of measures, processes, methods, systems, or techniques.

Hydrogen Sulfide (H₂S) – A colorless inflammable gas having the characteristic odor of rotten eggs, and found in many mineral springs. It is produced by the reaction of acids on metallic sulfides, and is an important chemical reagent.

New Source Review (NSR) – A preconstruction review and permitting program applicable to new or modified major stationary sources of air pollutants regulated under the Clean Air Act (CAA). NSR is required by Parts C (“Prevention of Significant Deterioration of Air Quality”) and D (“Nonattainment New Source Review”).

Nitrogen Oxides (NO_x) – Compounds whose molecules consist of nitrogen and oxygen.

Organic Compound – Any compound of carbon and another element. Examples: Methane (CH₄), Ethane (C₂H₆), Carbon Disulfide (CS₂)

Part 70 Operating Permit – Also referred to as a Title V permit, required for major sources as defined in 40 CFR 70 and LAC 33:III.507. Major sources include, but are not limited to, sources which have the potential to emit: ≥ 10 tons per year of any toxic air pollutant; ≥ 25 tons of total toxic air pollutants; and ≥ 100 tons per year of regulated pollutants (unless regulated solely under 112(r) of the Clean Air Act) (25 tons per year for sources in non-attainment parishes).

PM₁₀ – Particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers as measured by the method in Title 40, Code of Federal Regulations, Part 50, Appendix J.

Potential to Emit (PTE) – The maximum capacity of a stationary source to emit any air pollutant under its physical and operational design.

Prevention of Significant Deterioration (PSD) – A New Source Review permitting program for major sources in geographic areas that meet the National Ambient Air Quality Standards (NAAQS) at 40 CFR Part 50. PSD requirements are designed to ensure that the air quality in attainment areas will not degrade.

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Sulfur Dioxide (SO₂) – An oxide of sulfur.

Sulfuric Acid (H₂SO₄) – A highly corrosive, dense oily liquid. It is a regulated toxic air pollutant under LAC 33:III.Chapter 51.

Title V Permit – See Part 70 Operating Permit.

Volatile Organic Compound (VOC) – Any organic compound, which participates in atmospheric photochemical reactions; that is, any organic compound other than those, which the administrator of the U.S. Environmental Protection Agency designates as having negligible photochemical reactivity.